United States Patent [19]

Nurnberger

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[54] **SANITARY FECES COLLECTION DEVICE**

[76] Inventor: **George H. Nurnberger,** 11250 Playa St., Space 85, Culver City, Calif. 90203

[21] Appl. No.: **838,410**

[22] Filed: **Mar. 7, 1986**

Related U.S. Application Data

[63] Continuation of Ser. No. 716,454, Mar. 27, 1985, abandoned, which is a continuation-in-part of Ser. No. 590,038, Mar. 15, 1984, abandoned.

[51] **Int. Cl.**[4] **A47F 13/06**

[52] **U.S. Cl.** **294/1.4**

[58] **Field of Search** 294/1.4, 1.3, 1.5, 19.1, 294/55, 57, 53.5, 50.9, 100, 101; 15/257.1, 257.3, 257.6, 257.7, 104.8

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,431,008	3/1969	Narita	294/1.4
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Primary Examiner—James B. Marbert
Attorney, Agent, or Firm—Cislo & Thomas

[57] **ABSTRACT**

A sanitary disposable means of removal of animal feces is provided. The device comprises an elongated handle member having a hand gripping end and a scooping end. The scooping end includes a frame member for receiving and supporting a disposable container. A flap member is secured to the front portion of the rectangular support member and is operatively associated therewith for pivotal movement with a similar shaped flap of the disposable container into an open and a closed position. Finally, a handle is secured to the elongated handle member and connected by a rod to the flap member, whereby movement of the handle moves the flap member into either an open or a closed position.

8 Claims, 10 Drawing Figures

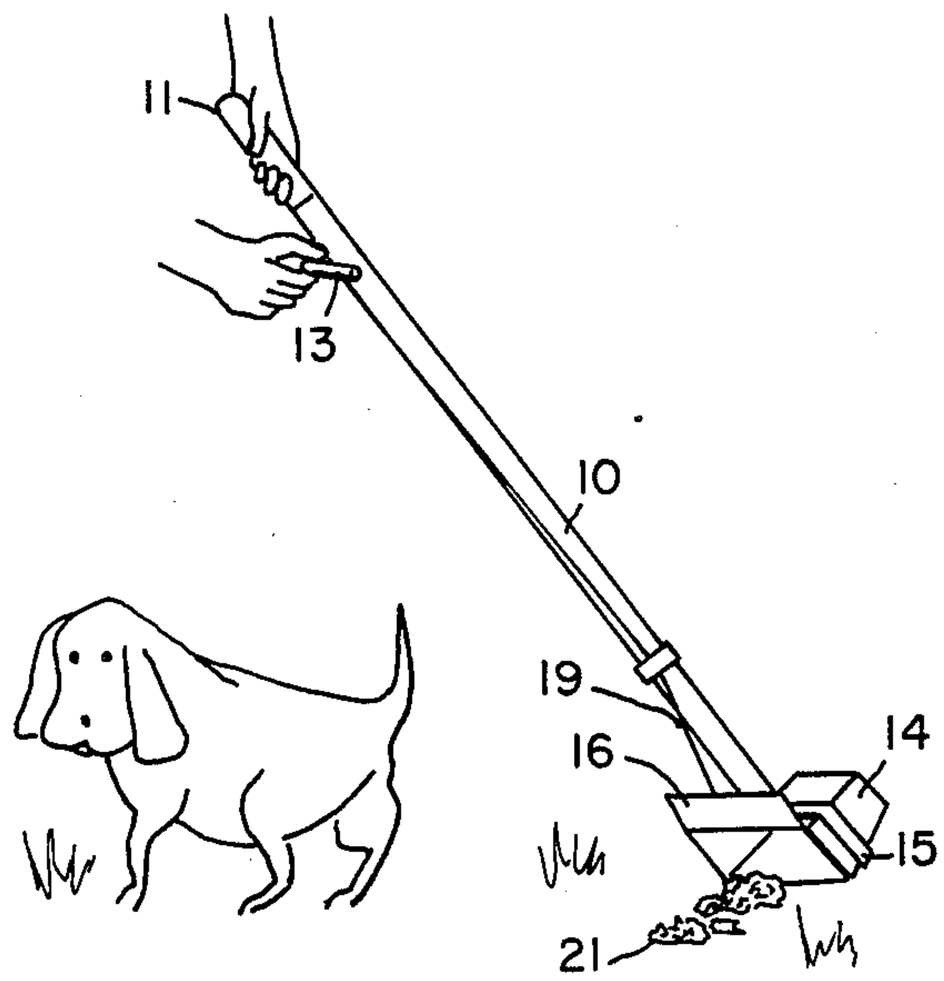


Fig. 1.

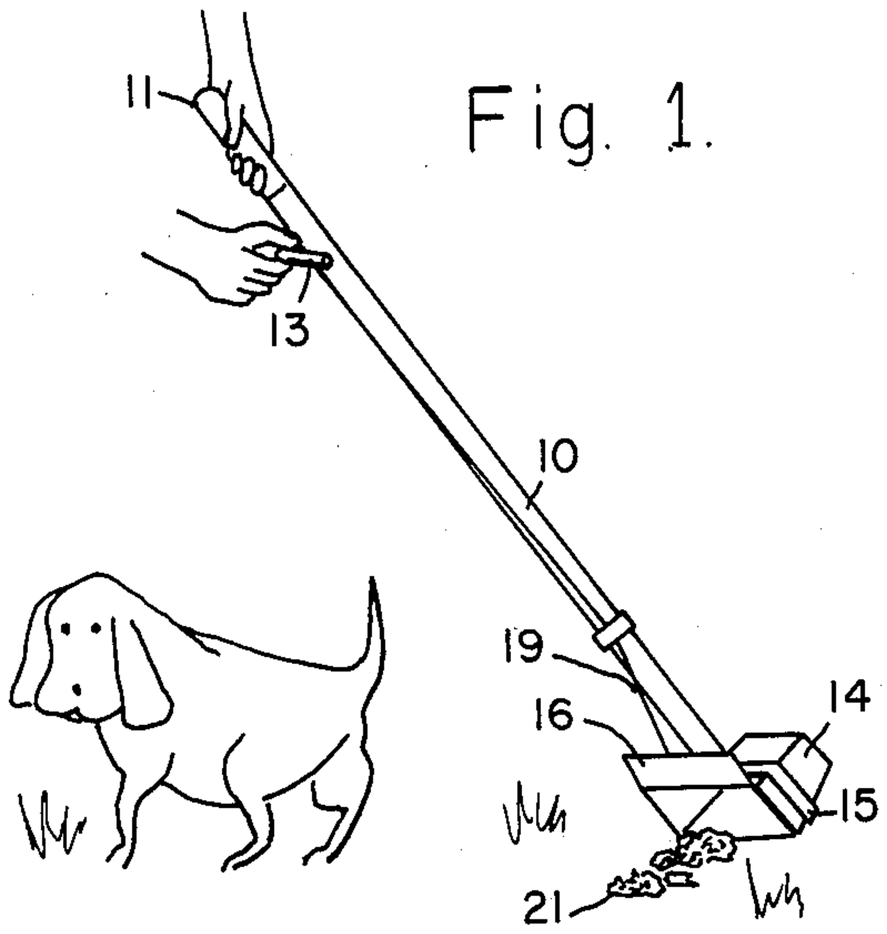


Fig. 2.

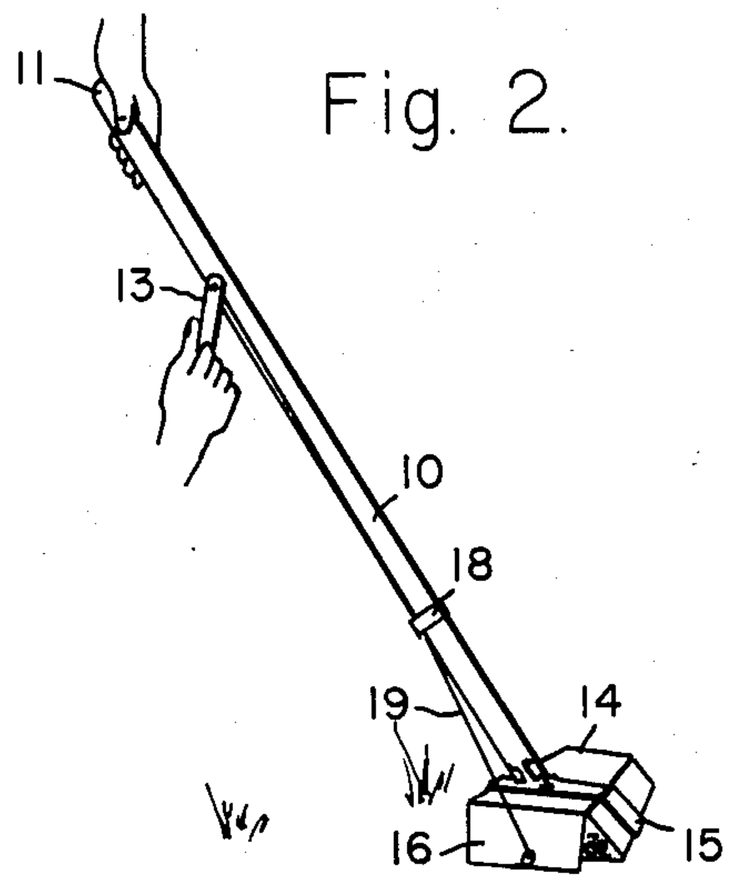


Fig. 4.

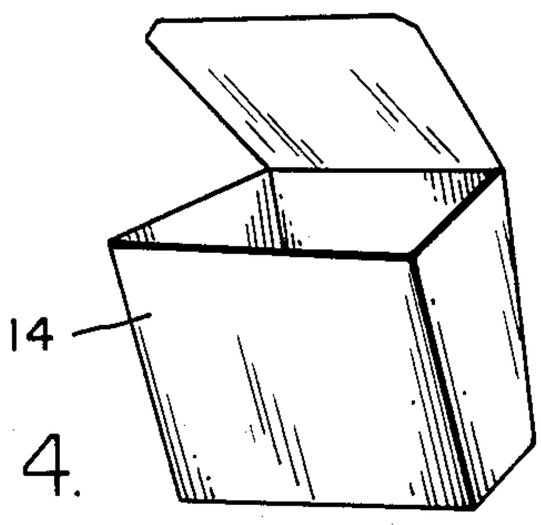
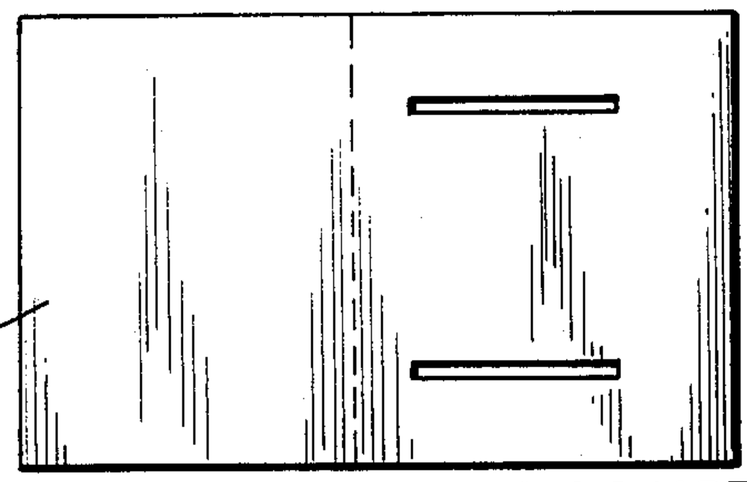
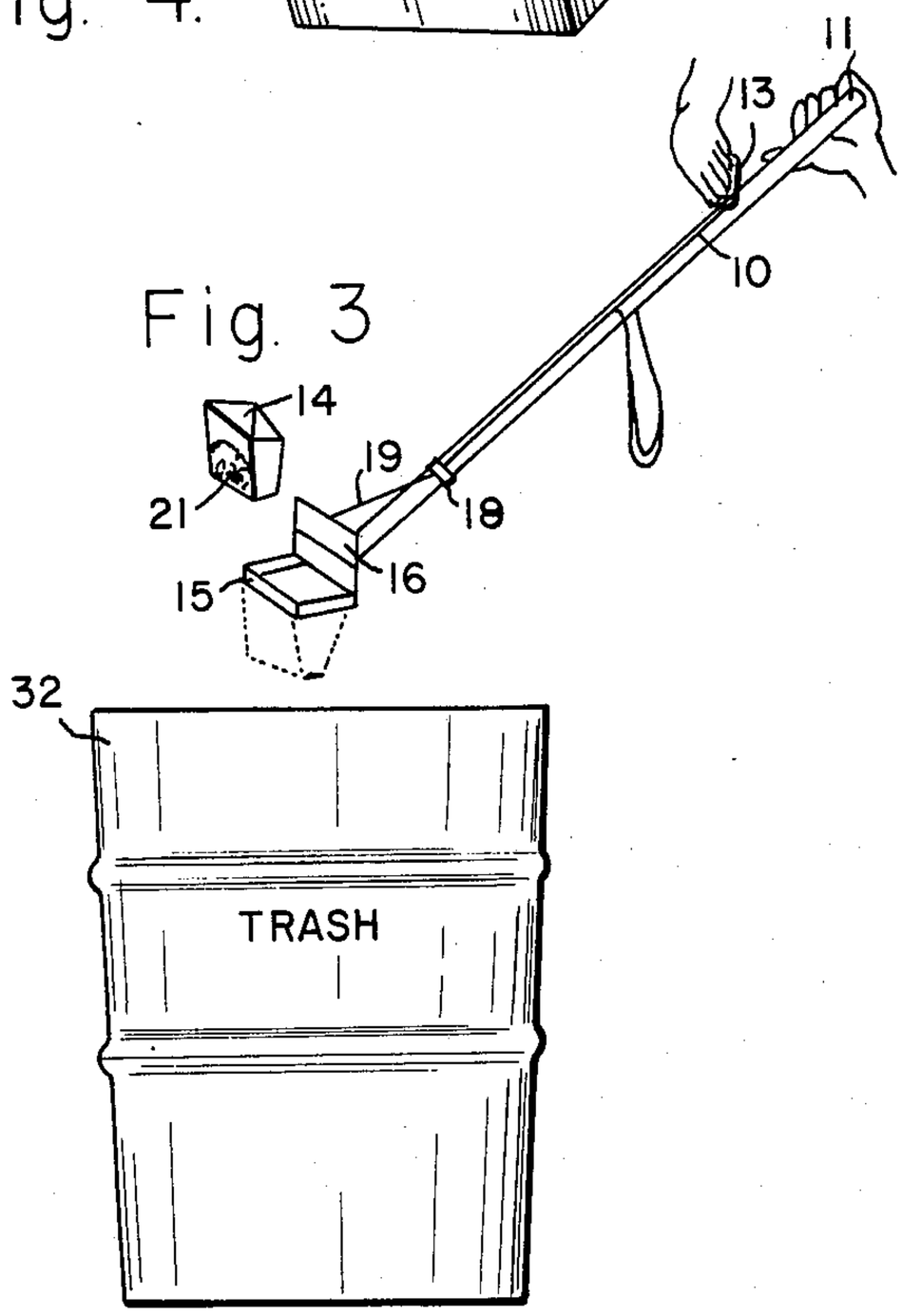


Fig. 7.



COLLAPSED CONTAINERS SHAPE

Fig. 3



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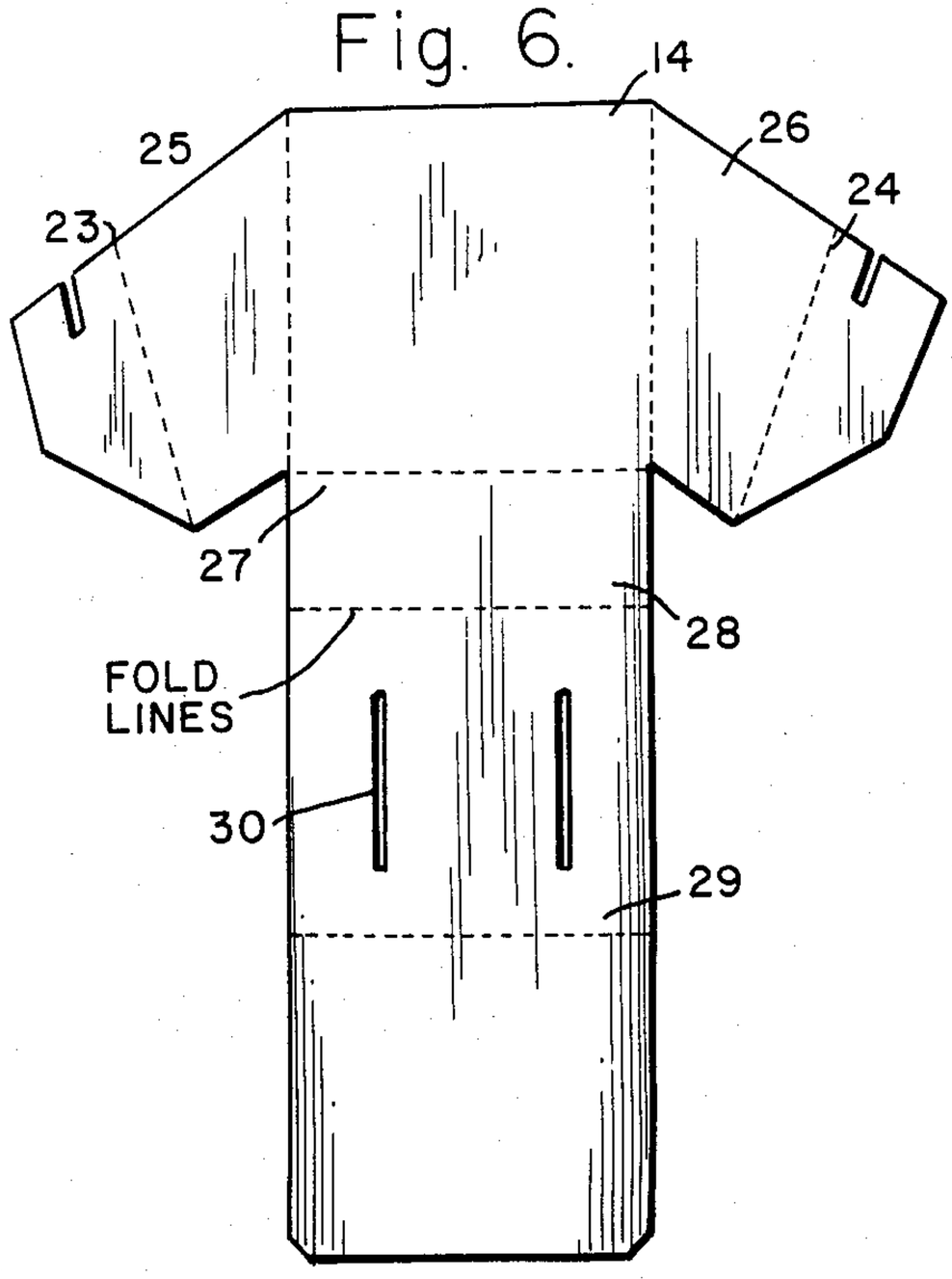

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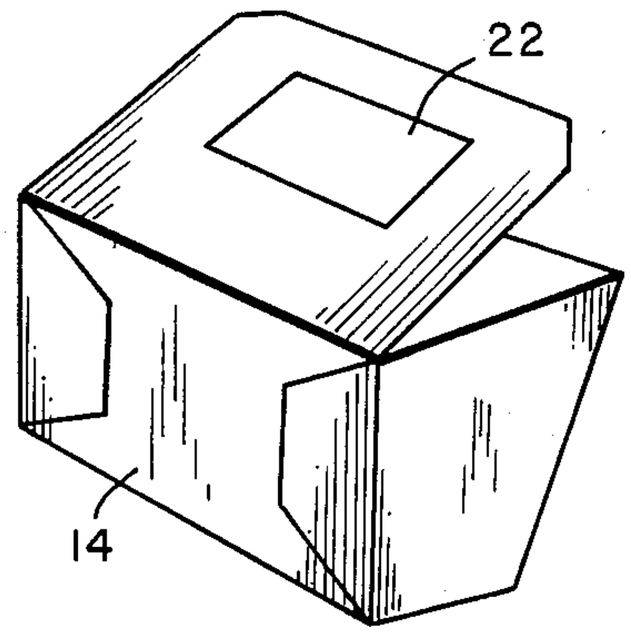

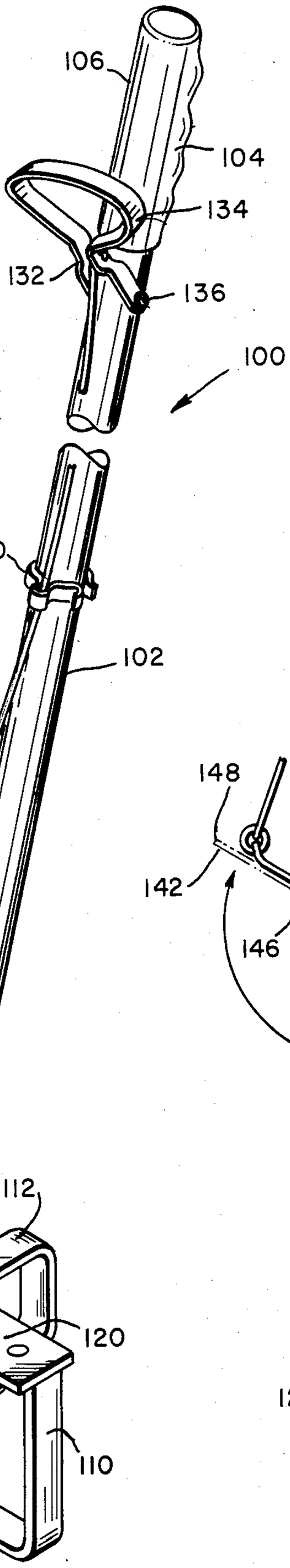

Fig. 8.

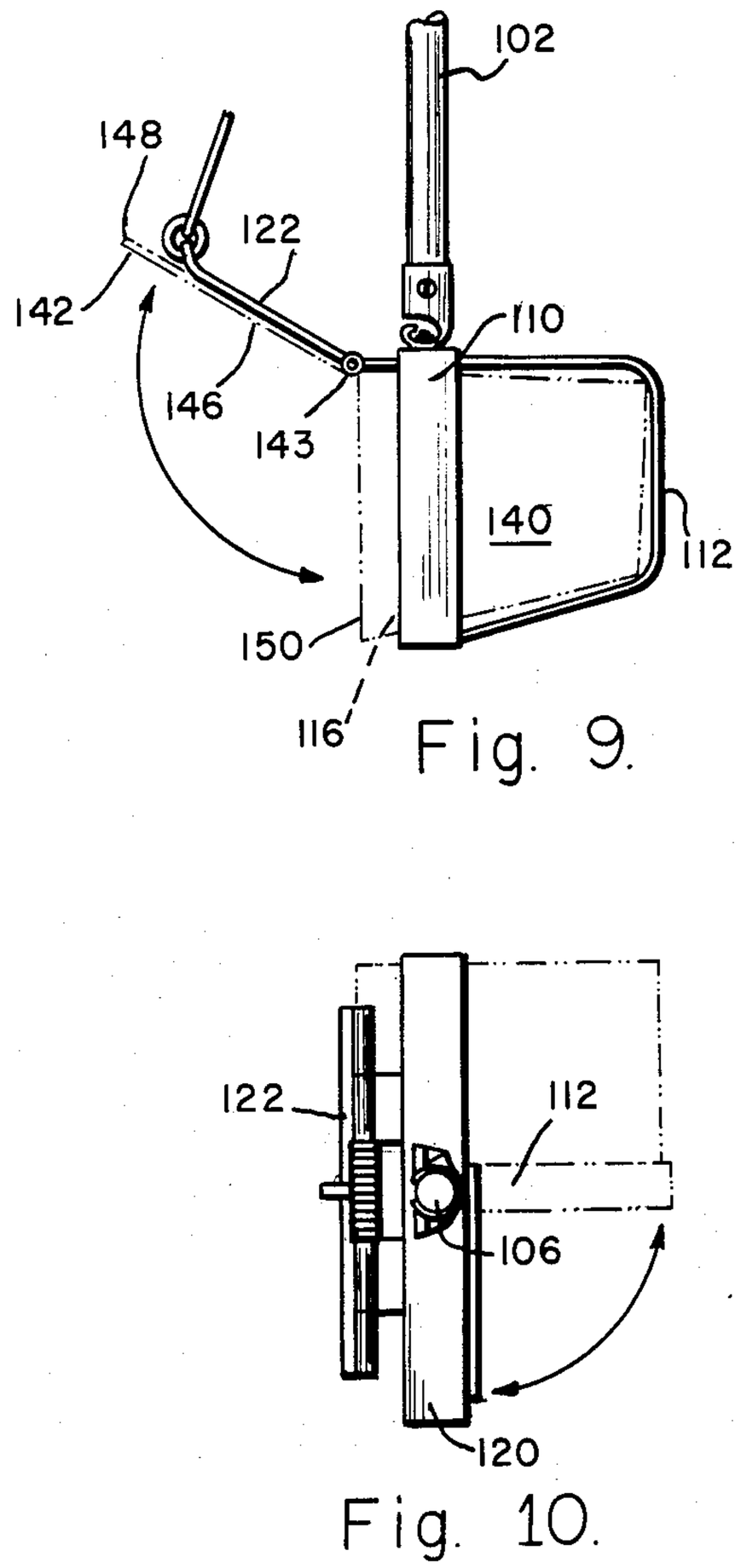

Fig. 9.

Fig. 10.

SANITARY FECES COLLECTION DEVICE

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation application of Ser. No. 716,454 filed Mar. 27, 1985 which in turn is a continuation-in-part application of Ser. No. 590,038 filed Mar. 15, 1984 now abandoned.

Due to the unhealthy, messy condition left by pet's feces after walking, a device for the sanitary personal collection has been sought. This device is easily transported by a wrist strap connected to an extended handle and safely scoops the droppings manually off of the ground into a specifically designed 2-ply or 4-play paper container, which, prior to use, is collapsible into an easily transferred folded packet and scoop, kept in one's pocket. When ready for use, the packet is then assembled and loaded into sweeper basket mechanism ready for use collection and disposal.

DESCRIPTION OF THE PRIOR ART

Previously, many designs have been patented to make the droppings removal task as healthy and simple as possible. These prior devices, shown in U.S. Pat. No. 4,316,627 by Solypa, for example, combine a finger-like shoveling device, clam-bucket in design gathering apparatus. U.S. Pat. No. 4,225,174 by Hennessy uses similar jaw type design combining the use of a plastic bag over its jaws. In U.S. Pat. No. 4,042,269 by Skermrtta, the collection receptacle acts more as a portable toilet and removable bottom to discharge the feces.

SUMMARY OF THE INVENTION

The disposable sanitary device described herein allows the person disposing feces a completely intangible exchange during disposal. An extended wooden or aluminium handle 39 inches in length with a handle grip at its very end, plus wrist strap contribute to the ease of manipulation of the manually controlled lever and sweeper basket mechanism. In operation, the scoop container is set adjacent of the droppings with a scooping motion, while simultaneously pushing lever down to close the scoop container's top, thereby confining all droppings and any odors in the container. Gathering continues until the scoop container is filled, then the device is held vertically by allowing the lever to spring snap shut, thereby locking the container's top closed. The device is held over trash can and the operating lever is lifted up to open the mechanism by nudging the bottom of the scoop container on the top edge of the trash can, thereby pushing the scoop container out of the basket and into the trash, thus demonstrating this device's sanitary means of collection and disposal. Another advantage is the simplicity of design, promoting its economical manufacture.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows an environmental isometric view of the lever rod operation in conjunction with the sweeper flap and basket and scoop container positioning the device.

FIG. **2** shows an environmental isometric view of the lever rod operation in conjunction with the sweeper flap and basket and scoop container confining feces into disposable scoop.

FIG. **3** depicts the technique for removing the scoop container from the basket.

FIG. **4** shows the shape of a fully assembled scoop container.

FIG. **5** shows the rear tabs of the scoop container inserted, with a self stick tab on scoop container's top.

FIG. **6** shows the one piece folding assembly and collapsing lines also depicting scoop container's preassembly shape;

FIG. **7** shows the rectangular packet shape of the collapsed scoop container before assembly, approximately 6 inches×8 inches or 4 inches×6 inches;

FIG. **8** is a perspective view illustrating the inventive device of the invention;

FIG. **9** is a partial schematic view illustrating how the device of the invention operates; and

FIG. **10** is a fragmented view illustrating more details of construction of the inventive device.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the embodiment of the invention shown in FIGS. **1** through **7**, the device is represented by the reference number **9**. The sanitary collection device **9** consists of a hand held grip **11** and a wrist strap **12** used to hold the device's extended handle **10** and to position opposite scoop container **14** adjacent to feces **21**. The operating lever **13** is lifted up, opening the sweeper flap mechanism **16**, simultaneously opening the already assembled and loaded scoop container **14**. Self stick adhesive tape **22** on scoop's top, coheses or sticks to sweeper flap mechanism **16** by means of a 3/32" metal wire **19** pivoting at a connection **17** and pivot point on the extended handle **10**. Moving down the length of metal wire lever rod **19** is a retainer clip **18** which aligns metal wire lever rod **19** with its connection to the spring retractable sweeper mechanism **16** as shown in FIG. **1**.

The disposable 4×6 or 6×8 inch scoop container packet **31** shown in FIG. **7** is folded into its collapsed shape. The packet is shown in the opened shape in FIG. **6** ready for assembly, with left tabs **23, 24** and right tabs **25, 26**, left and right sides **27, 28**, bottom fold lines **29** and top of scoop fold line. By assembling on these predesigned folds, the scoop container **14** is formed.

Combining a sweeping, scooping motion with this device **9** as is shown in FIG. **1** and FIG. **2** simultaneously allows scoop **14** to open, then allows spring held sweeper flap **16** to close slowly, thusly confining the fecal matter and odors entirely, also allowing continuous retrieval until scoop container **14** is filled.

To lock the scoop container's **14** top before disposal, which prevents any loss of contents, lever **13** is again lifted up in its open position, opening also sweeper flap mechanism **16** and scoop container **14** lid. At this time, lever **13** is allowed to snap shut thus locking scoop container's **14** top securely. The device may now be emptied by nudging scoop container's **14** bottom pushing on trash container's **32** top edge, simultaneously lifting lever **13** up, allowing the scoop container to easily fall into trash can **32**, shown in FIG. **3**.

Referring to FIGS. **8, 9** and **10**, the scoop **100** is shown as having an elongated handle member **102** made of wood in this instance, having a hand grasping end **104** with an appropriate handle member, such as **106** or the like, and having its opposed end **108** connected to a rigid rectangularly shaped support member **110**, and connected to a C-shaped intermediate support **112**, which is pivotally supported at its termini, as at **114** for

example, and thereby forming an open ended support cage **116** which, as previously described, is provided to receive the disposable container as will be more fully explained.

Secured to the rectangular support member **110**, from the upper bar **120**, is a flap member **122** spring biased by means of spring **124** into the normally closed position so as to overlie the open end of support cage **116**.

Flap member **122** has connector **126** secured to rod **128** and retained by means of clamp **130** to elongate member **102**, and having an opposed end **132** rigidly secured to a handle member **134** mounted for pivotal movement by means of bolt **136** to elongate handle member **102**. As can be appreciated, the movement of handle **134** actuates the flap **122** into either the open or closed position relative to, for example, container **140** disposed within the support cage **116** by reason of the retaining and support members **110** and **112**.

The disposable container **140**, in this particular instance, may be formed of self supporting, semi-rigid cardboard like material, having side, top and bottom walls, including a closure **142**, which, because the container **140** is made integrally, may be formed by creasing, scoring or the like as at **143** so that a container may be provided which can form a closed container for receiving scooped material thereinto.

In order to have the closure **142** of disposable container **140** operate in unison with flap member **122**, a double sided adhesive square, such as **146**, may be provided. Additionally, in order to having a closely fitted container which would not readily dispel its contents, the closure **142** may be provided with a tab **148** which would fit into, in aligned relationship, slot **150** formed in the bottom wall of container **140**.

In usage of the device **100**, a disposable container like that heretofore referred to is placed within the support cage **116** with the closure element being secured to the pressure sensitive adhesive member **146**, thereby allowing for cooperative movement with the closure **146** and the flap member **122**.

After the material to be scooped is scooped into the interior of container **140** by reason of the lower edge of the closure **142**, the handle actuator **134** allows for the scooping action into the interior of the container **140**, and thereafter the material to be discarded may be taken to a trash barrel or the like, the closure member of the disposable container **140** disassociated from the adhesive strip, and the turning upside down of the device **100** will free the disposable container **140** from its retained position within the support cage **116** effectively dislodging the container **140** with the scooped material, thereby hygenically and effectively and efficiently disposing of the scooped up material.

Although the preferred embodiment shown on the sweeper flap mechanism has been fabricated of aluminium and sheet metal, it may well be made of extruded, molded plastics or combination of each, may it be understood these various changes may be within the scope of the appended claims without departing from the spirit and the scope of this invention.

I claim:

1. A scoop or the like structure comprising an elongated handle member, having a first hand gripping end and a second end operatively connected to a frame member comprising a first rectangular support member transverse to the axis of said handle member and a second intermediate C-shaped support member, lying in about the same lane as said handle member, said first rectangular suport member being connected to said second intermediate C-shaped support member and defining therebetween an open sided support cage adapted to receive a disposable member which extends outwardly from and beyond said open sided support cage and into which items are to be scooped and retained; a flap member secured to the front portion of said first rectangular support member and operatively associated therewith for pivotal movement with a congruently shaped enclosure element of said disposable member into an open and a closed position said flap member being adapted for releasable attachment to said congruently shaped enclosure element of said disposable member; and means operatively associated with said elongated handle member to actuate said flap member into either said open or closed positions.

2. The scoop in accordance with claim **1** wherein said flap member is spring biased into the normally closed position.

3. The scoop in accordance with claim **2** wherein said means to actuate said flap member comprises a handle secured to said elongated handle member and connecting a rod to said flap member and said handle member whereby movement of said handle member moves said flap member into either an open or a closed position.

4. The scoop in accordance with claim **3**, including a box like disposable container made of disposable material of a size and shape to fit within said open ended support cage and to be supported therein.

5. The scoop in accordance with claim **4** wherein said disposable container is rectangular in shape and has a closure element associated therewith for movement into a closed or open position with respect to said disposable container.

6. The scoop in accordance with claim **5** wherein means on said flap member are provided in order to secure said flap member to the closure of said disposable container.

7. The scoop in accordance with claim **6** wherein said disposable container is of semi-rigid, self supporting disposable material, and wherein said closure thereof is provided with a tab and the bottom wall of said disposable container member is provided with an aligned slot so that the tab of said closure may engage said slot in a locking relationship therewith.

8. The scoop in accordance with claim **7** wherein said C-shaped member is pivotally connected to said rectangular support member at the termini thereof and is adapted to be placed in side by side relationship therewith in order to decrease the volume of said open ended support cage whereby said scoop member may be readily stored.

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